

ABSTRACT OF THE DISCLOSURE

The present embodiments provide methods and apparatuses for use in reinforcing access door apertures and other apertures formed in fairings. Some embodiments provide an apparatus that includes a door aperture formed in a facesheet and a first load deflector having a length, wherein the first load deflector is curved along at least a portion of its length. The first load deflector is secured with the facesheet proximate the aperture such that the first load deflector deflects a load. In some embodiments the first curved load deflector comprises a majority of layers having orientations along the load to be deflected. The apparatus can further include a patch bonded with the facesheet proximate the aperture such that the patch surrounds the door aperture.